

IN THE CLAIMS:

1. (Currently Amended) An integrated device for oxygenating and filtering blood flowing through an extracorporeal blood circuit comprising:

a bubble trap having an inlet for receiving venous blood and an outlet for supplying venous blood;

a blood pump having an inlet connected to receive venous blood and an outlet positioned at a top of the blood pump;

a heat exchanger having a blood inlet connected to receive venous blood from the outlet of the pump and a blood outlet for supplying temperature controlled venous blood;

an oxygenator having an inlet connected to receive venous blood from the outlet of the heat exchanger and an outlet for supplying oxygenated blood;

an arterial blood filter having an inlet connected to receive oxygenated blood from the outlet of the oxygenator and an outlet for supplying filtered oxygenated blood; and

a monolithic housing including a first portion positioned at a top of the monolithic housing for defining the bubble trap, a second portion positioned at a bottom of the monolithic housing for defining the blood pump, a third portion for defining the heat exchanger, a fourth portion for defining the oxygenator and a fifth portion for defining the arterial blood filter, wherein the integrated device does not comprise a venous reservoir.

2. (Original) The integrated device of claim 1 wherein the blood pump comprises a centrifugal pump.

3. (Original) The integrated device of claim 2 wherein the centrifugal pump has an axis and wherein the centrifugal pump is positioned within the monolithic housing such that the axis of the centrifugal pump is horizontal.

Claims 4 to 6 (Canceled).

7. (Previously presented) The integrated device of claim 1 wherein the monolithic housing is configured such that blood flowing through the extracorporeal circuit is directed through the bubble trap before the blood enters the blood pump.